

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Aqueous solution for post-etch residue removal having a reduced etching rate, comprising: ~~an organic acid from the group consisting of hydroxy-carboxylic acids and/or the group consisting of mono-, di- and tricarboxylic acids, in the presence of an oxidant,~~

at least one hydroxycarboxylic acid in an amount of from 0.1 to 30%, based on the total weight of the solution,

hydrogen peroxide in an amount of from 0.1 to 10%, based on the total weight of the solution,

at least one corrosion inhibitor selected from the group consisting of imidazoline compounds, and

optionally, additives for improving the cleaning action and inertisation to Al, Cu, Ti, W, Al/Cu, TiN and SiO₂ surfaces.

Claim 2 (Canceled).

Claim 3 (Currently Amended): Aqueous solution according to Claim 1, wherein the at least one corrosion inhibitor is selected comprising one or more compounds from the group consisting of benzimidazoles, aminobenzimidazoles and 2-alkylbenzimidazoles as corrosion inhibitors.

Claim 4 (Original): Aqueous solution according to Claim 1, comprising at least one aprotic polar solvent.

Claim 5 (Currently Amended): Aqueous solution according to Claim [[1]] 4, wherein the comprising at least one aprotic polar solvent is selected from the group consisting of N-methylpyrrolidone (NMP), ethylene glycol, propylene glycol, dimethyl sulfoxide (DMSO) and 1-methoxy-2-propyl acetate (PGMEA).

Claim 6 (Currently Amended): Aqueous solution according to Claim 1, comprising at least one surface-active substance surfactant.

Claim 7 (Currently Amended): Aqueous solution according to Claim [[1]] 6, wherein the at least one surfactant is selected from the group consisting of an comprising at least one anionic surfactant and/or and a nonionic surfactant as surface active substance.

Claim 8 (Currently Amended): Aqueous solution according to Claim 7, wherein the comprising at least one anionic surfactant is selected from the group consisting of aliphatic carboxylic acids and alkylbenzenesulfonic acids and/or at least one and the nonionic surfactant is selected from the group consisting of alkyl oxalkylates and alkylphenol oxethylates.

Claim 9 (Currently Amended): Aqueous solution according to Claim 8, wherein the comprising at least one anionic surfactant is selected from the group consisting of heptanoic acid, octanoic acid and dodecylbenzenesulfonic acid and/or at least one and the nonionic surfactant is selected from the group consisting of fatty alcohol alkoxylates, octylphenol oxethylates and polyoxyethylene sorbitan fatty acid esters (Tween®).

Claim 10 (Currently Amended): Aqueous solution according to Claim 1, wherein the at least one hydroxycarboxylic acid is selected comprising at least one organic acid from the group consisting of glycolic acid, lactic acid, hydroxybutyric acid, glyceric acid, malic acid, tartaric acid, citric acid, malonic acid, succinic acid, glutaric acid and maleic acid.

Claims 11-13 (Canceled).

Claim 14 (Currently Amended): Aqueous solution according to Claim 1, wherein the comprising at least one corrosion inhibitor is present in an amount of from 1 ppm to 1%, based on the total weight of the solution.

Claim 15 (Currently Amended): Aqueous solution according to Claim [[1]] 4, wherein the comprising at least one aprotic polar solvent is present in an amount of from 0.1 to 10%, based on the total weight of the solution.

Claim 16 (Canceled).

Claim 17 (Currently Amended): Aqueous solution according to Claim [[1]] 7, wherein the comprising at least one anionic surfactant is present in an amount of from 1 ppm to 1%, based on the total weight of the solution, and/or at least one and the nonionic surfactant is present in an amount of from 1 ppm to 1%, based on the total weight of the solution.

Claim 18 (Canceled).

Claim 19 (Currently Amended): Aqueous solution according to Claim [[1]] 4, wherein said aqueous solution comprises comprising citric acid as the at least one hydroxycarboxylic acid, hydrogen peroxide, N-methylpyrrolidone (NMP) as the at least one aprotic polar solvent and optionally additives.

Claim 20 (Currently Amended): Solution according to Claim 19, wherein the comprising citric acid is present in an amount of from 0.1 to 30%, the hydrogen peroxide is present in an amount of from 0.1 to 10% and the N-methylpyrrolidone is present in an amount of from 0.1 to 10%.

Claim 21 (Currently Amended): Solution according to Claim 19, wherein the at least one comprising a corrosion inhibitor is present in an amount of from 1 ppm to [[1%]] 10,000 ppm and a wetting agent surfactant is present in an amount of from 1 ppm to 1%.

Claim 22 (Previously Presented): The method of using an aqueous solution according to Claim 1 for the production of semiconductors on spray tools or in tank units.

Claim 23 (New): Aqueous solution according to Claim 1, wherein the at least one hydroxycarboxylic acid is present in an amount of from 3 to 7%, based on the total weight of the solution, the hydrogen peroxide is present in an amount of from 1 to 3%, based on the total weight of the solution, at least one aprotic polar solvent present in an amount of from 0.5 to 1.5%, based on the total weight of the solution, the at least one corrosion inhibitor is present in an amount of from 1 ppm to 1%, based on the total weight of the solution, and a

Application No. 10/594,767
Reply to Office Action of February 18, 2010

surfactant present in an amount of from 1 ppm to 1%, based on the total weight of the solution.

Claim 24 (New): A process for removing side-wall residue from a semiconductor device after dry etching, said process comprising contacting a semiconductor substrate with the aqueous solution according to claim 1.